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Ian Harrison

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HUNTON & WILLIAMS LLP  
INTELLECTUAL PROPERTY DEPARTMENT  
1900 K STREET, N.W.  
SUITE 1200  
WASHINGTON, DC 20006-1109

EXAMINER

ALAWADI, SARAH

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/579,512	<b>Applicant(s)</b> HARRISON ET AL.	
	<b>Examiner</b> SARAH AL-AWADI	<b>Art Unit</b> 1619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 46-75 is/are pending in the application.
- 4a) Of the above claim(s) 51,52,70,71 and 73-75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 46-50,53-69 and 72 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Priority**

Applicants claim foreign priority to PCT/FR04/02762 filed 10/27/2004, Application 0313284 filed 11/13/2003 and Application 0400665 filed 01/23/2004. Priority is denied because no English translation of the documents was provided.

### **Response to Remarks**

Applicant's election without traverse of Group I claims 46-72, and the species: liquid phase (O) for the emulsion, oil of polyorganosiloxane for the organosilicone material, one non-ionic hydrophilic amphiphilic polymer for the dispersant, care or detergence agent for articles made of textile fibers for the active material, and copolymers of ethyleneically unsaturated carboxylic acid or anhydride and ethyleneically unsaturated nonionic monomer for the solid matrix in the reply filed on 05/21/2009 is acknowledged. Claims 46-50, 53-69, and 72 read on the elected species.

### **Information Disclosure Statement**

No Information Disclosure Statement (IDS) has been submitted for review.

### ***Claim Objections***

Claim 63 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only, see MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

*Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 67-69 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claims use broad genus claims such as aqueous and nonaqueous liquid and detergent formulations in the outer phase. The extremely broad use of aqueous and nonaqueous liquid detergent and aqueous care liquid rinsing formulation in the claims do not have sufficient description in the specification, nor are a representative number of compounds described within any one of these genii to demonstrate that applicant was in possession at the time of filing of any one of these genus terms.

The MPEP states that the purpose of the written description requirement is to ensure that the inventor had possession, as of the filing date of the application, of the specific subject matter later claimed by him. The courts have stated:

“To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that “the inventor invented the claimed invention.” *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997); *In re Gostelli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) (“[T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.”). Thus, an applicant complies with the written description requirement “by describing the invention, with all its claimed limitations, not that which makes it obvious,” and by using “such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention.” *Lockwood*, 107 F.3d at 1572, 41 USPQ2d at 1966.” *Regents of the University of California v. Eli Lilly & Co.*, 43 USPQ2d 1398.

Further, for a broad generic claim, the specification must provide adequate written description to identify the genus of the claim. In *Regents of the University of California v. Eli Lilly & Co.* the court stated:

“A written description of an invention involving a chemical genus, like a description of a chemical species, ‘requires a precise definition, such as by structure, formula, [or] chemical name,’ of the claimed subject matter sufficient to distinguish it from other materials.” *Fiers*, 984 F.2d at 1171, 25 USPQ2d 1601; *In re Smythe*, 480 F.2d 1376, 1383, 178 USPQ 279, 284985 (CCPA 1973) (“In other cases, particularly but not necessarily, chemical cases, where there is unpredictability in performance of certain

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species or subcombinations other than those specifically enumerated, one skilled in the art may be found not to have been placed in possession of a genus ...”) *Regents of the University of California v. Eli Lilly & Co.*, 43 USPQ2d 1398.

The MPEP further states that if a biomolecule is described only by a functional characteristic, without any disclosed correlation between function and structure of the sequence, it is “not sufficient characteristic for written description purposes, even when accompanied by a method of obtaining the claimed sequence.” MPEP § 2163. The MPEP does state that for a generic claim the genus can be adequately described if the disclosure presents a sufficient number of representative species that encompass the genus. MPEP § 2163. If the genus has a substantial variance, the disclosure must describe a sufficient variety of species to reflect the variation within that genus. See MPEP § 2163. Although the MPEP does not define what constitute a sufficient number of representative species, the courts have indicated what do not constitute a representative number of species to adequately describe a broad generic. In *Gostelli*, the courts determined that the disclosure of two chemical compounds within a subgenus did not describe that subgenus. *In re Gostelli*, 872, F.2d at 1012, 10 USPQ2d at 1618.

The MPEP lists factors that can be used to determine if sufficient evidence of possession has been furnished in the disclosure of the Application. These include “level of skill and knowledge in the art, partial structure, physical and/or chemical properties, functional characteristics alone or coupled with a known or disclosed correlation between structure and function, and the method of making the claimed invention. Disclosure of any combination of such identifying characteristics that distinguish the claimed invention from other materials and

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would lead one of skill in the art to the conclusion that the applicant was in possession of the claimed species is sufficient.” MPEP § 2163. While all of the factors have been considered, a sufficient amount for a *prima facie* case are discussed below.

In the instant case, the claims are drawn to an inner inverse emulsion wherein the active material contained in the hydrophobic phase is an aqueous care or detergent agent (claims 67 and 69) or a nonaqueous liquid detergent.

**(1) Level of skill and knowledge in the art:**

PhD. or M.D.

**(2) Physical and/or chemical properties and (4) Functional characteristics:**

Applicant has not set forth the physical and/or chemical properties and functional characteristics for types of aqueous care or liquid detergents, and nonaqueous liquid detergents in the outer phase. It is not clear what constitutes a nonaqueous liquid detergent and aqueous liquid detergent and care composition. Applicants have not provided examples in the specification. Furthermore, it is unclear how a liquid detergent can be differentiated as both an aqueous and nonaqueous detergent. Detergents such as SDS are well known to possess amphiphilic properties, (see attached wikipedia article also cited on 892 form) thus it is unclear how a liquid detergent can be either aqueous or nonaqueous formulation.

The description requirement of the patent statute requires a description of an invention, not an indication of a result that one might achieve if one made that invention. See *In re Wilder*, 736, F.2d 1516, 1521, 222 USPQ 369, 372-73 (Fed. Cir. 1984) (affirming rejection because the specification does “little more than outlin[e] goals appellants hope the claimed invention achieves and the problems the invention will hopefully ameliorate.”) Accordingly, it is deemed

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that the specification fails to provide adequate written description for the genus of the claims and does not reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the entire scope of the claimed invention.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 46 recites the broad recitation wherein the mPa.s of the polysaccharide is optionally ranging from 1 to 4500 and the claim also recites the mPa.s is less than 20,000 from which is the narrower statement of the range/limitation.



Claim 56 recites the broad recitation wherein the mass ratio of the mass of the dispersed aqueous phase to the hydrophobic phase ranges from 5/95 to 95/5, and the claim also recites optionally from 30/70 to 80/20 which is the narrower statement of the range/limitation.

Claim 57 recites the broad recitation wherein the stabilizer presents a ratio of the mass of stabilizer to the mass of hydrophobic phase and ranges from 0.1/100 to 500/100 and the claim also recites optionally from 0.5/100 to 50/100 which is the narrower statement of the range/limitation.

Claim 60 recites the broad recitation wherein the surfactants and/or polymers present in the outer phase has a total content of between 0.01% and 50% and the claim also recites preferably between 0.1% and 10%, and more particularly between 0.5% and 5% by weight which is the narrower statement of the range/limitation.

Claim 62 recites the broad recitation wherein the inverse emulsion and outer phase comprising the dispersant and/or stabilizer present a mass ratio of inner inverse emulsion/outer phase comprising the dispersant and/or stabilizer ranging from 50/50 to 99/1, and the claim also recites optionally from 70/30 to 80/20 which is the narrower statement of the range/limitation.

Claim 63 recites the broad recitation wherein the dispersant and/or stabilizer and the inner inverse emulsion present a mass ratio of dispersant and/or stabilizer/mass of the inner inverse emulsion, ranging from 0.01/100 to 50/100, and the claim also recites optionally from 0.5/100 to 5/100 which is the narrower statement of the range/limitation.

Claim 46 recites the limitation wherein the inner inverse emulsion comprises said continuous liquid. There is insufficient antecedent basis for this limitation in the claim as the claim does not previously mention "said continuous liquid."

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Claim 63 recites the limitation the emulsion as claimed in claim 1 to 17. There is insufficient antecedent basis for this limitation in the claim as the claim depends on withdrawn claims. For the purposes of examination the examiner interprets claim 63 to depend from claim 46.

Claim 46 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The emulsion that Applicants are claiming in claim 46 is unclear and confusing. The Examiner interprets a multiple emulsion comprising an inverse emulsion to include that of oil in water in oil and water in oil in water emulsions that contain stabilizers and dispersant. The Examiner broadly and reasonably interprets a solid matrix to include that of a dry from. Applicants are highly encouraged to submit a drawing for clarification purposes. Furthermore

Claim 68 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear if claim 68 is pertaining to the outer solid matrix being in the dried form and if this is what is meant by nonaqueous liquid. The examiner interprets a nonaqueous phase to be the dry solid matrix form (M) as recited in claim 46.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 46-50 and 53-55, 58-59, and 65-66 is rejected under 35 U.S.C. 102(b) as being anticipated by Dederen et al, US 2002/ 0065328 as evidenced by Sharma et al. Food Promotion Chronicle, and Wikipedia, Dimithicione. (See 892 form)

Claim 46 recites a multiple emulsion comprising an inner inverse emulsion comprising a liquid, an aqueous dispersed phase, and at the interface of the two phases one water soluble or water dispersible stabilizer. The emulsion contains an aqueous or water-miscible outer phase, in which the inner emulsion is dispersed by means of one dispersant and/or stabilizer. Claim 46 also recites that the emulsion can be in solid form which is water dispersible as a multiple emulsion in which the outer phase is aqueous comprising the inverse emulsion dispersed in a water soluble or water dispersible solid matrix. The dispersant and/or stabilizer is located at the interface of the inverse emulsion and of the of the matrix and optionally dispersed in the matrix, said emulsion having the stabilizer at the interface of the two phases of the inner inverse emulsion made of water-soluble or water-dispersible polysaccharides, whose mean degree of polymerization is at least 1.5, preferably at least 20 and most particularly at least 100, and the Brookfield viscosity is at 25 degrees Celsius as a solution at 1% by mass in water, is less than 20,000 mPa.s. and optionally, ranging from 1 to 4500 mPa.s, and said polysaccharide also being free of lipophilic polyorganosiloxane substituent groups.

Dederen et al. teaches two types of multiple emulsions; a water in oil in water and an oil in water in oil emulsion which are examples of multiple emulsions that have a liquid phase and an aqueous phase (paragraph 0075) and a polysaccharide stabilizer which are dispersed in water such as xanthan and polyglucomannan polysaccharides. (paragraph 0012 and 0078)

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Dedren et al. teaches that the polysaccharides are made of glucose and glucuronic acid monomer units, and do not have polyorganosiloxane substituent groups. (paragraph 010) Furthermore Dedren et al. teaches that the emulsion stabilizer components can be blended to produce a dry formulation (solid form) that can be dispersed in water. (paragraph 0086) With regard to the limitation(s) recited in claim 46 which state that the polysaccharides have a mean degree of polymerization (DP) that is at least 1.5, preferably 20, and most particularly at least 100, and the Brookfield viscosity at 25 degrees Celsius as a solution at 1% by mass in water is less than 20,000 mPa.s and optionally ranging from 1 to 4500 mPa.s.; until some material difference(s) in the properties of the composition are demonstrated, said limitation is considered by the Examiner to be directed toward the multiple emulsion system which is instantly claimed. (furthermore, see table in paragraph 0046 for components)

Regarding claim 47-50 which recites that active material is an oil, such as an organo-silicon material, Applicant's elected that the active material is an organo-silicon material such as an oil. Dederen et al. teaches that the oil phase can include that of silicone oils such as dimethicone. Dimethicone is a type of branched organosilicon material that is an example of silicon oil. ((paragraph 0038) Claim 50 recites that the said polyorganosiloxane is a nonionic or amino polyorganosiloxane. Dederen et al. teaches dimethicone as the oil used. (discussed above) Dimethicone is an example of a nonionic polyorganosiloxane. (see wikipedia website of dimethicone, attached)

Claim 53 recites the emulsion as claimed in claim 46 wherein said polysaccharide (PSA) or its skeleton is a linear or branched, nonionic or ionic homopolysaccharide or heteropolysaccharide, having identical or different glycosyl units linked via (1-4) bonds, and optionally (1-3) and/or (1-6) bonds. Dederen et al. teaches an example of a polysaccharide such

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as xanthan gum which is an anionic polysaccharide having glycosyl units consisting of two D-glucopyranosyl units, two D-mannopyranosyl units and one D-glucopyranosyluronic acid. As evidenced by Sharma et al. the polymer backbone of xanthan is made up of (1-4) linked B-D-glucopyranosyl units. (see Sharma et al. on 892 form, figure 1)

Claim 54 recites the emulsion of claim 53 wherein the hydroxyl functions of the glycosyl units are substituted and/or modified with nonionic or ionic groups other than lipophilic polyorganosiloxane groups. Dederen et al. teaches an embodiment of Xanthan gum as the polysaccharide. Sharma et al. discloses the structure of Xanthan gum and it is shown that xanthan gum has nonionic glycosyl units that are substituted and/or modified by groups other than lipophilic polyorganosiloxane groups. (see Sharma et al. on 892 form, figure 1)

Claim 55 recites the emulsion as claimed in claim 53 wherein said polysaccharide is selected from a group which can include that of depolymerized galactomannans. Dederen et al. teaches that other than xanthan gum, a polysaccharide such as guar gum can be used. (paragraph 0015) Guar gum is a single polysaccharide and Dederen teaches an embodiment of guar gum used alone, not polymerized with other polysaccharides.

Claims 58 and 59 both recite the emulsion as claimed in claim 46 wherein the said dispersant and/or stabilizer can be a hydrophilic amphiphilic polymer. Claim 59 recites that the hydrophilic amphiphilic polymer must be non-ionic. Dederen et al. teaches amphiphilic non-ionic polymers such as xanthan gum.

Claim 65 recites the emulsion as claimed in claim 46, wherein the outer phase is an aqueous phase (water). Dederen et al. teaches multiple emulsions such as oil in water in oil and water in oil in water emulsions. (paragraph 0075) Thus Dederen et al. teaches where the outer phase is aqueous such as water.

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Claim 66 recites the emulsion of claim 46 wherein the outer phase is an alcoholic or aqueous-alcoholic phase, optionally isopropanol or ethanol. Dederen et al. teaches that the aqueous phase (water phase) can include fatty alcohols. (paragraph 0042) Thus, Dederen et al. teaches an embodiment with an aqueous alcohol phase.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 56, 57, 60, 61-64 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dederen et al. US 2002/ 0065328 with respect to claims 46 and 58 as presented above.

Claim 56 recites the emulsion of claim 46 wherein the dispersed aqueous phase presents a mass ratio of the mass of the dispersed aqueous phase to the hydrophobic phase ranging from 5/95 to 95/5 and optionally from 30/70 to 80/20. Dederen et al. teaches that the oil phase (hydrophobic phase) can contain 30% by weight, and that water can be present up to a 100%. (see paragraph 0046 ) The ranges disclosed in Dederen overlap the ranges claimed for the instant application as it is possible to form 62/30 of aqueous phase (water) to hydrophobic (oil) phase. (see the ranges for the preferred non-alkoxide emulsifiers in the table shown in paragraph 0046) Furthermore, absent evidence of criticality , since the values of each parameter with respect to the claimed composition are adjustable, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the composition and adjust the mass ratio of each parameter in the composition. MPEP 2144.04 recites “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization.

Claim 57 recites the emulsion as claimed wherein the stabilizer presents a ratio of the mass of stabilizer to the mass of the hydrophobic phase ranges from 0.1/100 to 500/100, optionally from 0.5/100 to 50/100. Dederen et al. teaches that the oil phase (hydrophobic phase)

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can contain 30% by weight. (paragraph 0046) Dederen also teaches that the polysaccharide combinations (stabilizer) can be present at a percent range from 0.25 to 7% weight. (paragraph 0046) Thus Dederen et al. teaches ranges that overlap with the instant invention. Furthermore, absent evidence of criticality, since the values of each parameter with respect to the claimed composition are adjustable, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the composition and adjust the mass ratio of each parameter in the composition. MPEP 2144.04 recites “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization

Claim 60 reads an emulsion as claimed in claim 58 wherein the hydrophilic amphiphilic polymer present in the outer phase has a total content of between 0.01% and 50% by weight, preferably between 0.1% and 10% and more particularly between 0.5% and 5% by weight relative to the inverse emulsion. Dederen et al. teaches amphiphilic non-ionic polymers such as xanthan gum. Dederen further teaches that these polymers can be present in the composition in an amount of 3 to 8 parts by weight. (see paragraph 0088) Furthermore, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the composition and adjust the weight ratio of each parameter in the composition. MPEP 2144.04 recites “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization

Claim 61 recites the emulsion as claimed in claim 58 wherein the hydrophilic polymer is made of or comprises at least one water-soluble or water-dispersible polysaccharide. (PSA) As



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discussed above Xanthan is a water soluble polysaccharide which is an example of a hydrophilic polymer that Dederen uses for the emulsions. (see above)

Claim 62 recites the emulsion of claim 46 wherein the inverse emulsion and outer phase comprising the dispersant and/or stabilizer present a mass ratio of inner inverse emulsion/outer phase comprising the dispersant and/or stabilizer, ranging from 50/50 to 99/1, optionally from 70/30 to 80/20. Dederen teaches water in oil in water emulsions as discussed above, and oil in water in oil emulsions, thus teaches a combination having an inverse emulsion of continuous liquid, an aqueous dispersed phase, and one water soluble or dispersible stabilizer, and an aqueous or water-miscible outer phase in which is dispersed the inner emulsion by means of at least one dispersant and/or stabilizer. Dederen et al. teaches that the oil phase (hydrophobic phase) can contain 30% by weight. (paragraph 0046) Dederen also teaches that the polysaccharide combinations (stabilizer) can be present at a percent range from 0.25 to 7% weight. (paragraph 0046) Thus Dederen et al. teaches ranges that overlap with the instant invention. Furthermore, absent evidence of criticality, since the values of each parameter with respect to the claimed composition are adjustable, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the composition and adjust the mass ratio of each parameter in the composition. MPEP 2144.04 recites "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization.

Claim 63 is interpreted as reciting the emulsion of claim 46, wherein the dispersant and/or stabilizer and the inner inverse emulsion presents a mass ratio expressed as solids of dispersant and or stablizer mass of the inner inverse emulsion, ranging from 0.01/100 to 50/100, optionally from 0.5/100 to 5/100. As shown above, Dederen teaches that the emulsion can

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contain a solid matrix by drying. Furthermore, Dederen et al. teaches that the oil phase (hydrophobic phase) can contain 30% by weight. (paragraph 0046) Dederen also teaches that the polysaccharide combinations (stabilizer) can be present at a percent range from 0.25 to 7% weight. (paragraph 0046) Thus Dederen et al. teaches ranges that overlap with the instant invention. Furthermore, absent evidence of criticality, since the values of each parameter with respect to the claimed composition are adjustable, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the composition and adjust the mass ratio of each parameter in the composition. MPEP 2144.04 recites “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization

Claim 64 recites the emulsion as claimed in claim 46 wherein the dispersant and/or stabilizer is present in the outer phase in a concentration ranging from 1% to 50%. The table in paragraph 0046 demonstrates that the stabilizer can be present in the composition in a range from 0.25 to 7 wt % which overlaps the instant claimed range. Furthermore, absent evidence of criticality, since the values of each parameter with respect to the claimed composition are adjustable, it would have been prima facie obvious for a person having ordinary skill in the art to routinely optimize the amount of each parameter in the composition and adjust the weight percent of each parameter in the composition. MPEP 2144.04 recites “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine optimization.

Claim 72 recites the solid matrix of claim 46 wherein the solid matrix can be made of materials such as ethylenically unsaturated nonionic monomers. Dederen et al. teaches the use of emollients such as which can be solid at ambient temperature such as coconut oil which is made

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up of one ethyleneically unsaturated nonionic monomer. (paragraph 0037-38) Claim 72 also recites that the solid matrix can be made of materials such as water-dispersible saccharides or fatty acids. Dederen et al. teaches that the emulsifier and emulsion stabilizer components can be combined to provide a dry formulation that can be dispersed in water. An example of the stabilizer can include that of xanthan gum (a saccharide). (stated supra) The emulsifier can include fatty acid esters. (paragraph 0020) Thus a solid (dry) matrix can be made from the embodiments presented in Dederen et al.

It would have been prima facie obvious at the time the invention was made to create an emulsion identical to the instantly recited claims, because Dederen teaches and suggests the claimed embodiments, and it would have been within the purview of the skilled artisan to try creating the emulsions set forth in Dederen. One would have been motivated to do so because Dederen et al. teaches that such emulsifying systems provide enhanced stability even at low emulsifier levels which allows for flexibility in the type of product made. For example the emulsifier systems allows for the creation of low viscosity compositions such as thin lotions or thick creams and gels. (abstract)

Claims 68-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dederen et al. United States Patent Application 2002/0065328 with respect to claim 46 as presented above, further in view of Bavouzet et al. United States Patent Application 2005/0053569.

Dederen et al. does not expressly teach the hydrophobic phase is a care or detergence agent for articles made of textile fibers, and the outer phase is an aqueous liquid rinsing agent (claim 67 and 69) or a non aqueous liquid detergent formulation (claim 68).

Claim 67 and 69 are interpreted as reciting the emulsion of claim 46 wherein the active material contained in or constituting the hydrophobic phase is a care or detergence agent for articles made of textile fibers, and the outer phase can contain an aqueous liquid rinsing detergent formulation containing the dispersant and/or stabilizer formed from a mixture of at least one nonionic hydrophilic surfactant and of at least one anionic hydrophilic surfactant, optionally combined with at least one nonionic hydrophilic (amphiphilic) polymer. Regarding the recitation in claim 67 which recites the “aqueous liquid detergent formulation is formed from a mixture of atleast one nonionic hydrophilic surfactant and of atleast one anionic hydrophilic surfactant, optionally combined with at least one nonionic hydrophilic (amphiphilic polymer) and claim 69 which recites “aqueous liquid rinsing formulation formed from at least one cationic hydrophilic surfactant and/or from at least one cationic hydrophilic (amphiphilic) polymer, optionally mixed with at least one nonionic hydrophilic surfactant and/or at least one nonionic hydrophilic (amphiphilic) polymer,” the claim is directed towards a product by process, and MPEP 2113 states that “if the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

Bavouzet et al. teaches multiple emulsions for the use of detergents. (paragraph 008)The outer phase can consist of a surfactant and stabilizing polymer. (paragraph 0403) Bavouzet also teaches that the outer phase can contain sodium dodecyl sulfate. (paragraph 0464-0465)The

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emulsions of the invention represent detergent formulations for washing textile fibers or as compositions for the care of skin and hair. (paragraph 0426 and 0217)

Regarding claim 68 which recites the emulsions of claim 46, wherein the active material is contained in or constituted in the hydrophobic phase is a care or detergence agent for articles made of textile fibers, and the outer phase is a water-miscible nonaqueous liquid detergent formulation containing the dispersant and or stabilizer. Absent evidence to the contrary the Examiner interprets detergents such as SDS described above to be both nonaqueous and aqueous formulations as it is well known in the art that detergents have amphiphilic properties. Bavouzet et al. teaches that the multiple emulsions can have in inner organic phase being dispersed in the aqueous phase or an inner aqueous phase dispersed in the organic phase then dispersed in the aqueous phase. Furthermore, Bavouzet et al. teaches that the active materials can be in the form of a solid dispersed phase. (paragraph 0159) Regarding the recitation in claim 68 which recites the “aqueous liquid detergent formulation is formed from a mixture of atleast one nonionic hydrophilic surfactant and of atleast one anionic hydrophilic surfactant, optionally combined with at least one nonionic hydrophilic (amphiphilic polymer)

It would have been obvious to the skilled artisan to use a detergent or care articles with both aqueous and nonaqueous outer phases because reference Bavouzet et al. teaches multiple detergent of care emulsions wherein the outer phase is aqueous. Dederen teaches multiple emulsions with aqueous and non aqueous outer phases and Bavouzet teaches that emulsions with similar properties including aqueous outer phases can contain detergent or care formulations.

*Correspondence*

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Al-Awadi whose telephone number is (571) 270-7678.

The examiner can normally be reached on 9:30 am - 6:00 pm; M-F (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/SARAH AL-AWADI/  
Examiner, Art Unit 1619

/MP WOODWARD/  
Supervisory Patent Examiner, Art Unit 1615